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with chromosome 3 and/or chromosome 17 in humans, said method comprising contacting said chromosomal material with a high complexity nucleic acid probe wherein at least one component of the high complexity nucleic acid probe is targeted to a paracentromeric-specific nucleic acid segment, allowing said probe to bind to said targeted chromosomal material and detecting said bound probe, wherein bound probe is indicative of the presence of target chromosomal material.

REMARKS

Entry of the foregoing and further and favorable reconsideration of the subject application pursuant to and consistent with 37 C.F.R. §1.112 is respectfully requested

By the present amendment, claims 1, 48, and 50 have been amended to reintroduce reference to chromosome 3 previously deleted in Applicants' amendment filed October 25, 1999. No new matter has been added.

Turning now to the Official Action, claims 1 and 48-50 are rejected under 35 U.S.C. §103(a) as purportedly obvious over U.S. Patent 4,710,465 to Weissman et al., in view of Lichter et al. (*PNAS* 85:9664-9668, 1988) and further in view of Le Beau et al. This rejection is respectfully traversed.

As discussed in Applicants' previous responses The secondary reference of Lichter et al is not prior art to applicants' claimed invention. Applicants maintain that the instant claims are entitled to the priority dates of January 16, 1986 and

December 4, 1986, in view of the fact that support for the claims may be found in these earlier applications from which priority is claimed. For example, support for claims 1 and 48-50 may be found at the very least in Application Serial No. 937,793, filed December 4, 1986, at pages 8-15 and pages 32-39 and original claims 1, 3 and 17. Support for the pending claims may also be found at the very least in Application Serial No. 819,314, filed January 16, 1986, at pages 11-14, pages 31-38 and original claims 1, 3 and 17. Support for the recitation that the genetic rearrangement is associated with chromosome 3 and/or chromosome 17 is implicit in the description that the staining reagents useful in the invention are specific to single chromosomes at page 11, lines 1-5 of Application Serial No. 937,793 and at page 10, lines 17-21 of Application Serial No. 819,314. Original claim 3 in both priority applications also makes clear that the targeted chromosomal material can be each of the individual, normal human chromosomes 1-22, X or Y, which provides a specific description of chromosome 3 and/or 17. One skilled in the art would understand these generic descriptions of staining targeted chromosomal material to detect genetic rearrangements and the specific description of "normal human chromosomes 1 through 22, X and Y," to describe each of the chromosomes, including chromosomes 3 and 17, as being the targeted material.

In view of the fact that support may be found in the instant application, which is identical to the series of applications from which priority is claimed as a divisional and continuation, and support may be found in the 06/937,793 and 06/819,314

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applications filed in 1986 from which priority is claimed as a continuation-in-part, Licher et al published in 1988 is not a proper prior art reference. The combination of Licher et al with Weissman and with Le Beau et al. is improper.

Absent the disclosure of Licher et al, there is nothing in the cited publications to disclose or even suggest a method of staining target *interphase* chromosomal material, as claimed by Applicants. That interphase chromosomal material could be reliably stained in a method as claimed is in no way taught by Weissman, or LeBeau et al. Accordingly, withdrawal of this rejection is respectfully requested.

Further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited.

In the event that there are any questions concerning this amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of this application may be expedited.

Respectfully submitted,

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